

METHOD FOR IDENTIFYING AN INTERROGATED OBJECT
USING A DYNAMIC OPTICAL TAG IDENTIFICATION SYSTEM

ABSTRACT OF THE DISCLOSURE

5 An interrogator identifies an interrogated object using a light transceiver
and a dynamic optical tag associated with the interrogated object. The dynamic
optical tag receives an output light beam from the light transceiver and
controllably reflects the light beam back to the light transceiver as an input light
beam. The dynamic optical tag includes a controllable light reflector that is
controllable between a reflective state and a non-reflective state and having a
10 modulation signal input, and a controller that provides the modulation signal input
to the controllable light reflector. In operation, the interrogator transmits an
interrogation light beam from the light transceiver to the dynamic optical tag, the
dynamic optical tag reflects a modulated interrogation light beam back to the light
transceiver as the input light beam, and the light transceiver receives and analyzes
15 the input light beam to determine an identity of the dynamic optical tag and the
interrogated object. A field-of-regard broadening structure such as a volume
hologram preferably overlies the controllable light reflector.